2017

M.Com. 4th Semester Examination

SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

PAPER—COM-403

Full Marks : 50

Time : 2 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Unit – I

(Marks : 20)

1. Answer any *two* questions from the following : 2×5

(a) Define and explain Holding Period Rate of Return (HPROR). 5

(b) Write a short note on 'random work hypothesis' in respect of share prices. 5

(c) Following are the different share price values for a particular company, X :

Day	Opening price (Rs.)	Closing price (Rs.)	High price (Rs.)	Low price (Rs.)
1	25	27	29	23
2	27	29	30	25
3	28	30	31	24
4	26	28	32	25
5	24	23	30	21
6	26	24	29	22

Draw a candlestick (bar) chart. 5

(d) Explain filter rule as a part of trading strategy of shares. 5

2. Answer any *one* question of the following : 1×10

(a) (i) Give examples of leading and lagging indicators of share prices from economic (and political) analysis.

(ii) Which indicators may be neither leading nor lagging ? What are still their utilities ?

(iii) Under company level analysis, mention a few ratios which would expose the financial health of the company and also state their significance.

3+2+5

(b) (i) The following are the returns for security X and the market portfolio :

Month :	1	2	3	4	5	6	7	8	9	10
Return of X :	7%	10%	–2%	3%	4%	3%	5%	10%	8%	3%
Return of market	3%	5%	–4%	1%	5%	1%	3%	6%	3%	0%

You are required to compute the beta of security X. Also, interpret the result.

(ii) Write a short note on the characteristic line.

(5+2)+3

Unit – II

(Marks : 20)

3. Answer any *two* questions from the following : 2×5

(a) Explain the Markowitz mean-variance rule. Draw a diagram to show how it is applied to arrive at the efficient frontier. 5

(b) Smart Fund discloses the following information to you :

	Rs.
Value of investments	50,00,000
Other assets	18,00,000
Accrued income	2,50,000
Value of liabilities	22,00,000
Accrued expenses	1,80,000
Other liabilities	10,20,000
Number of units in the fund is	3,00,000

You are required to determine the net asset value (NAV) as on date. Determine the return to a unit holder (holding

100 units) assuming that the NAV after one year is Rs. 10.80 during which there is a receipt of Rs. 2 per unit on account of dividend. 2+3

(c) There are three securities A, B and C. An equal investment is made in the securities while creating a two-security portfolio. It is mentioned that —

- Standard deviation A = 10%, Standard deviation B = 12%, Standard deviation C = 11%.
- The return from all the securities is 15%.
- The correlation coefficients between the securities are : A and B = +0.30, A and C = +0.20, B and C = +0.60.

You are required to determine the best option of the three possible combinations in the two-security portfolio based on the above information. 5

(d) You are appointed as an investment advisor by an organization. A client gives you information about three diversified non-sectoral funds :

Fund	Average portfolio return (%)	Beta value	Standard deviation (%)
R	11.5	1.30	12.0
S	14.2	1.45	14.0
T	13.5	1.28	13.0
Bankex	12.5	1.15	15.0
Nifty	16%	1.00	13.8

Assuming that the risk-free rate of return is 5.25%, you are required to rank the funds using an appropriate measure. Give proper justification with detailed calculations. 5

4. Answer any *one* from the following : 1×10

(a) (i) What are the criteria you would consider before taking any investment decision ?

(ii) There are two securities U and V. You are given the following information :

State of the economy	Probability	Return (%)	
		Security U	Security V
Good	0.50	18	16
Moderate	0.30	13	14
Gloomy	0.20	10	11

You are required to compute the following :

(i) The correlation between securities U and V.

(ii) The portfolio expected return and risk, assuming that in the 2-security portfolio UV, investment in U and V is made in the ratio of 1 : 4.

4+(3+3)

(b) (i) X Co. Ltd. has issued 14% debentures of Rs. 100 each at 10% discount one year back from now. Interests are paid annually at the end of each year. Marginal corporate tax rate is 40% and cost of capital is 12%. Also note that these debentures are to be redeemed as per the following schedule :

- 30% of the debentures at par after 3 years from now.
- 20% of the debentures at a premium of 5% after 4 years from the time of issue, and
- remaining 50% of the debentures at a premium of 10% after 5 years from the time of issue.

Loss on issue of debentures, if any is to be written off against taxable profit in the ratio of outstanding balance of debentures.

Calculate the present value of the debentures.

(ii) What do you mean by 'floatation cost' and explain how it is used in valuation of securities ?

7+3

[Internal Assessment — 10 marks]